

## ABSTRACT OF THE DISCLOSURE

The present invention concerns a method and a device for machine diagnosis and, in particular, for transmission diagnosis in a machine or motor vehicle. The measurement system, according to the invention, comprises a coil (2) wound on a coil core (11), on the surface of which ferritic wear particles (3) to be detected accumulate. Opposite the coil (2) a rotating toothed wheel (6) is arranged which influences the inductance of the coil (2). The output signal of the coil (2) is pulsed with a constant amplitude, the pulse frequency depends on the rotation speed of the toothed wheel (6). Deviations of the amplitude are attributable to the accumulation of ferritic wear particles (3) on the coil (2) and therefore provide a measurement of the condition of the machine or transmission.